

WE CLAIM:

1. A method for assessing the bone density of an anatomical structure, the method comprising:

tapping the anatomical structure with a tapping rod, thereby imparting mechanical energy to the implant structure;

measuring, for a time interval, energy reflected from the anatomical structure as a result of the tapping;

creating a time-energy profile based on the energy reflected from the anatomical structure during the time interval; and

evaluating the time-energy profile to determine the bone density of the anatomical structure.

2. A method comprising:

tapping a dental structure with a tapping rod, thereby imparting mechanical energy to the dental structure, wherein the dental structure is anchored in a foundation having a bone density;

measuring energy reflected from the dental structure as a result of the tapping;

creating a time-energy profile of the energy reflected from the dental structure; and

evaluating the time-energy profile to make a determination regarding the bone density of the foundation.

3. A method comprising:

tapping an object that is anchored to an anatomical structure, thereby imparting mechanical energy to the object;

measuring energy reflected from the object as a result of the tapping;

creating a time-energy profile of the energy reflected from the object;

and

evaluating the time-energy profile to make a determination regarding the bone density of the anatomical structure to which the object is anchored.

4. The method of Claim 3, wherein the object is a natural tooth that has been subjected to a trauma-induced fracture.

5. The method of Claim 3, wherein the object is a natural tooth that has become at least partially abscessed.

6. The method of Claim 3, wherein the object is a natural tooth that has undergone a bone augmentation procedure.

7. The method of Claim 3, wherein the object is a dental implant.

8. The method of Claim 3, wherein the object is an orthopedic implant.